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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|----------------------|------------------|
| 10/612,878 | 07/07/2003 | Timothy Warner | 22130-00027-US | 6991 |
| 30678 | 7590 | 01/18/2006 | EXAMINER | |
| CONNOLLY BOVE LODGE & HUTZ LLP | | | MORILLO, JANEL COMBS | |
| SUITE 800 | | | | |
| 1990 M STREET NW | | | ART UNIT | |
| WASHINGTON, DC 20036-3425 | | | PAPER NUMBER | |
| | | | 1742 | |

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/612,878

Applicant(s)

WARNER ET AL.

Examiner

Janelle Combs-Morillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-110 is/are pending in the application.
- 4a) Of the above claim(s) 22-24, 34, 35, 57-59 and 99-101 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21, 25-33, 36-56, 60-98 and 102-110 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 100703.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of group I in the reply filed on 10/17/2005 is acknowledged. The traversal is on the ground(s) that the inventions are not independent. This is not found persuasive because the product can be made by a materially different process such as powder metallurgy, etc.

The requirement is still deemed proper and is therefore made FINAL.

Concerning the requested rejoining of groups I and II under the Ochiai guidelines, the examiner submits that said groups will be rejoined upon allowance of product claim(s), and if the process claims of group II have each and every limitation of said allowable product claims.

Claim Objections

2. Claims 72-75 are objected to because of the following informalities: said claims are dependent on non-elected claims 34 or 35. Appropriate correction is required.

Specification

3. The examiner acknowledges paragraph [0068] of the specification, which states "articles such as 'the', 'a' and 'an' can connote the singular or plural". However, for the instant claims, the examiner has interpreted articles such as 'the', 'a' and 'an' to connote the singular only, the claims must specifically recite the plural when a plural is intended.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-21, 25-33, 36-56, 60-98, 102-110 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heymes et al (US 6,077,363) in view of Rioja (US 6,562,154).

Heymes teaches a wrought Al-Cu alloy sheet or plate (column 5 lines 6-21) comprising (in weight%) 3.5-5.0% Cu, 1.0-2.0% Mg, <0.25% Si, <0.25% Fe, <0.55% Mn (abstract), which overlaps the presently claimed ranges of Cu, Mg, Si, Fe, Mn, Ag, and Zr (cl. 1-8, 29, 30, 36-43, 65, 66, 72-85, 106). Heymes teaches typically 0.05-0.11% Zn is present in said alloy (see Table at column 6), which falls outside the instant range of Zn (cl. 1, 5, 8, 30, 36, 40, 41, 66, 76-78, 82, 85, 107).

However, Rioja teaches a substantially similar Al-Cu alloy, wherein up to 1.0% Zn can be added to form strengthening precipitates (column 5 lines 15-22, at claim 8). It would have been obvious to one of ordinary skill in the art to add Zn to the alloy taught by Heymes because Rioja teaches said addition is useful to provide strengthening precipitates.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility.

Additionally, "The normal desire of scientists or artisans to improve upon what is already

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generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages," In re Peterson, 65 USPQ2d at 1379 (CAFC 2003).

Concerning product by process claims 9, 31-33, 44, 67, 68, 86, 108, 109, Heymes teaches said alloy can be worked and heat treated, including hot rolling, natural aging, quenching, and controlled stretching 1.5-3%, and further age hardening to a T351 temper (column 6 lines 11-15). Also, Rioja mentions a separate solution heat treatment step can be applied to Al-Cu alloys (commonly known as a T6 type temper). It would have been obvious to one of ordinary skill in the art to apply a separate solution heat treatment step (T6 type temper, Rioja at column 7 line 12) to the Al-Cu alloy taught by Heymes because Rioja teaches said treatment is conventional for Al-Cu alloys, and useful for high strengths (column 6 line 67).

Concerning claims 10, 45, 69, 87, 110, Heymes said alloy can be worked into sheets >12mm thick as well as 0.5-3mm thick sheets (column 1 lines 5-6).

Concerning claims 11, 18, 19, 28, 46, 64, 88, and 105, Heymes teaches said alloy can be plated with another aluminum alloy (abstract) on at least one face, wherein said cladding alloy has better corrosion resistance (column 1 line 18), such as AA1070 (see Example 2).

Concerning claims 20, 21, 55, 56, 97, 98, Heymes teaches said alloy is used for aircraft fuselages (column 2 line 47).

Concerning claims 12-19, 25-27, 47-54, 60-63, 70, 71, 89-96, 102-104, which mention various properties such as TS, YS, elongation, damage tolerance, crack propagation, corrosion resistance, Heymes teaches said alloys exhibit a UTS 439.5-478MPa, YS 290-351MPa, elongation 13.6-25% (Table 1, 4), which falls within the minimums of UTS, YS, and elongation.

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Concerning the properties not directly taught by the prior art, because Heymes teaches an alloy within the presently claimed alloying ranges, then substantially the same properties are expected to be present. Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Because Heymes teaches substantially similar processing steps performed on an alloy that falls within the instant alloying ranges, it is held that the same properties would be expected to be present.

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM
December 28, 2005


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1100